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GEOGRAPHY AND THE GERRYMANDER

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The gerrymander is an American name for a political abuse, which, though by no means exclusively American, has been most widely practiced and generally tolerated in this country. It is a device for the partial suppression of public opinion that simulates agreement with democratic institutions. The subterfuge, therefore, has no place in countries in which oligarchic control is legitimized. Nor is it suited to European conditions, because it is difficult there to shift electoral boundaries. European electoral units in large part have a clearly defined historical basis, which in turn rests upon geographic coherence. This solidarity is commonly so great that it cannot be disregarded. American political divisions on the other hand show in major part very imperfect adjustment to economic and historic conditions, largely, because many of the divisions were created in advance of such conditions. They are, in the main, not gradual growths, but deliberate and arbitrary legislative creations, made without adequate knowledge of the conditions that make for unity or disunity of population within an area. Political divisions tend, therefore, to be less significant than in European countries and to be regarded more lightly. It is in particular the smaller unit, such as the county, that has been manipulated for electoral purposes. In spite of their poorly drawn individual boundaries, groups of counties can be organized into larger electoral units in such a manner as to represent a common body of interests predominating. On the other hand they can be so arranged as to mask these interests. The lack of proper coherence in the individual county may be rectified in large measure in the group, or it may be intensified. Gerrymandering accomplishes the latter result.

For more than a century, voting districts have been arranged from time to time so as to develop to maximum effectiveness the strength of the party in power and to render impotent the opposition groups. There is little abatement of the practice in evidence today. Few states are without gerrymandered districts of some sort. No party in power has refrained from the gerrymander. The analysis of congressional districts on the following pages is in no sense a partisan argument. It is solely the accident of numerical superiority that determines which party is the offender and which the victim.

Various remedies have been proposed, but apparently none has taken adequate account of the necessity of adjustment along geographic lines. Denunciations of the system and appeals to the conscience of the legislator are not solutions. The difficulty is largely in determining what constitutes a fairly arranged voting district. Definitions of the gerrymander are peculiarly vague on this critical point. Webster speaks of an "unfair and unnatural" division. The *Encyclopaedia Britannica* calls it an arrangement which gives "an unfair advantage to the party in power." A student of the subject[1] says the district must be "formed intentionally in a particular manner for partisan advantage." All of these definitions fail to show wherein lies the wrong of the gerrymander. The purpose of this article is to show the gerrymander to be a violation of the geographic unity of regions and to indicate the possibilities of equable representation by reorganizing electoral districts on a geographic basis.

A region of geographic unity is one in which conditions of life are in general similar because of similarity of environment. The people have the same common interests. Certain occupations are dominant. Social institutions show a large degree of uniformity. Public opinion is easily determinable. Quite commonly also the people of such an area have a common history, as geographic factors have in most cases been most potent in determining time and manner of settlement of the region. As time goes on this regional individuality usually continues to develop in some respects, if not in all. Past and present, therefore, combine to give to such an area a definite political attitude. The interests

[1] Griffith, E. C., *Rise and Development of the Gerrymander.*

of representative government demand that such a crystallized opinion be given a voice, that it be not concealed by the division of the natural unit and its distribution among other districts of different interests and opinions.

If this be granted, the determination of unit geographic areas becomes a matter of political importance. The amount of divergence of electoral boundaries from geographic boundaries is thus a measure of their fairness.

In the determination of natural areas the chief factors involved are (1) location, especially as concerns accessibility from other sections; (2) topography, especially as determining character and position of lines of communication, and as affecting the type of use to which the land is put; (3) soils; (4) drainage; (5) mineral resources. Climate is not commonly a differentiating factor for areas involving only a small part of a state. It does become such a factor, however, in the extreme west of the United States. The existence of a unit geographic area depends as a rule upon a combination of these factors which set it off from adjacent regions. Most geographic regions are separated, not by sharply drawn boundaries, but by transition zones of varying width. Similarly the degree of contrast between regions may vary greatly.

To test the relation of political attitude to geographic conditions three "border" states—Missouri, Kentucky, and Tennessee— have been selected, in which historical and economic contrasts are strong and in which the two parties are of nearly equal strength. The voting unit subjected to scrutiny is the congressional district. The state is first separated into its geographic components. The political attitude of these subdivisions is next determined and, when possible, an explanation given. The divergence of geographic and congressional boundaries is noted and the extent to which natural units are masked thereby in the election returns. This is the specific test proposed for the determination of gerrymandered conditions. Finally, the attempt is made to show that congressional districts can be so rearranged that they will correspond in the main to natural divisions, and that this redistricting may give to each party approximately its proper representation.

A redistribution of this sort will supply a satisfactory solution for the gerrymander. It has the advantage over the remedy commonly suggested, the election of congressmen by the state at large, of preserving the individuality of the congressional district. Not only are the qualifications of the candidate better known to an individual district than those of a group of candidates to the entire state, but the district retains the means of direct expression of its opinion in the national assembly. Areas of strong partisan attitude would thus be given a voice, and in areas of mixed sentiment the lines of demarcation would be drawn on the fair basis of unity of interests. In time districts of the latter sort should develop a definite political attitude. Because of the uniformity of conditions within a geographically organized district, it should grow in solidarity as time goes on, with an effective body of public opinion as the result. Districts, once properly established, will become permanent in their major features. Marginal readjustments will of course take place from time to time, to meet the changing population requirements of congressional allotments. The nuclear area, however, embodying the dominant attitude of the district, will remain undisturbed. When present party alignments cease to satisfy, for they are based more largely on tradition than on fact, the realignment should take place between districts which are geographically determined, not within such districts.

Only the two major parties are here considered, as the minor parties are negligible at present within the states mentioned. The strength of the two parties is derived from the votes cast in the latest election for governor. Congressional elections are of little value in arriving at an estimation of party strength. In most congressional districts, as matters stand, the result of the election can be foretold, and a considerable part of the discouraged minority does not vote, or votes merely in the primary of the other party. The last presidential election brought to the fore issues of foreign policy. The normal strength of the parties was well shown, however, in all three states by the elections for governor, and is closely checked by the vote cast for the other state officers. In every instance, the minority party is sufficiently strong to bring out the full strength of both parties.

MISSOURI

Missouri is a state of strong but in general not of abrupt geographic contrasts. North Missouri consists principally of prairie farms; the greater part of southern Missouri is in the Ozark Highland. Few midwestern states show as great diversity of economic conditions. Dividing lines, however, are not sharply drawn in most places and transition zones may exceed the width of a county.

A convenient line of division between north and south Missouri is the Missouri River. This line is commonly employed and finds expression in the boundaries of a half-dozen of the present congressional districts (fig. 2). However apparent on the map, this line does not exist as one of geographic contrast. Politically and economically it has been and still is a median line, not a frontier. In the settlement of the state the most important movements of population have been up the Missouri River. A tongue of settlement extended across the state on both sides of the river even before all of the eastern border was occupied. The most important early rural settlements of the state were made in the Boonslick country, on both sides of the river, in what are now roughly Howard, Cooper, and Saline counties (fig. 2). This line of expansion of settlers of Southern stock is still expressed politically by the fact that the stronghold of Missouri's Democracy is located in these central counties. It is to be noted also that the Missouri River counties, because of their settlement by slaveholders, still contain the highest percentages of negro population (fig. 1). After 1830 a large German immigration was directed to Missouri and, as in the previous case, it moved up both sides of the Missouri Valley. It began in the lower river counties and there displaced almost entirely the older Southern stock. The lower river counties, because of their German stock, are the strongest Republican districts of the state. In all the history of the state the Missouri River has served as a most powerful bond between the counties situated along its course. This historical influence is still strongly shown in the character of the population of the river counties and in their political attitude. Railroads and roads were built parallel

to the river, chiefly because of the early concentration of population here, and increased the coherence of the river counties. Five major railway lines run parallel to the Missouri through the counties adjoining the river, whereas a single north-south branch line runs in the opposite direction (fig. 4). The oft-proposed creation of a deep waterway between Kansas City and St. Louis would restore the direct value of the river as a highway.

The influence of the Mississippi River has been similar, though less pronounced. Settlement proceeded up its valley and outward from it. There is an especially marked similarity in the population of the Mississippi River counties above St. Louis. Those below constitute another unit group. Any just political classification, therefore, must accept the historic unity of the regions along the two great rivers of the state, especially since this unity is still most potent in determining political sympathies and economic interests. This idea must be fundamental to any subdivision of the state.

Topographically, three major divisions are recognizable (fig. 1), the plains of northern and western Missouri (I and II), the Ozark Highland (III), and the Southeastern Lowlands (IV). The plains area falls into two divisions, northern Missouri (I) and the Osage Plains (II). The plain of northern Missouri includes all of the northern part of the state, has a rather monotonous, gently rolling surface, and its soils are derived in the main from glacial materials. The greater part of the surface is covered by glacial clays and clay loams, similar to those of Iowa; along the Missouri River are important areas of rich loess lands. This area constitutes by far the largest section of good farming land in the state, and is almost purely agricultural in its interests. The Osage Plain has a smooth surface formed by the wearing down of the soft rocks that underlie it, and has soils that are residual from these rocks. It is fair to good farming country, rather advanced in development. The Ozark region consists (a) of a central highland (III), which is in the main traversed with difficulty, and parts of which are extremely rugged in topography and poor in soil; and (b) of border areas that slope

away towards the adjacent plains and merge into them gradually. Of the latter, the Springfield Plain (IIIa) is the richest and most highly developed. It has, in major part, a smooth surface, and it includes the rich zinc and lead areas of the Joplin

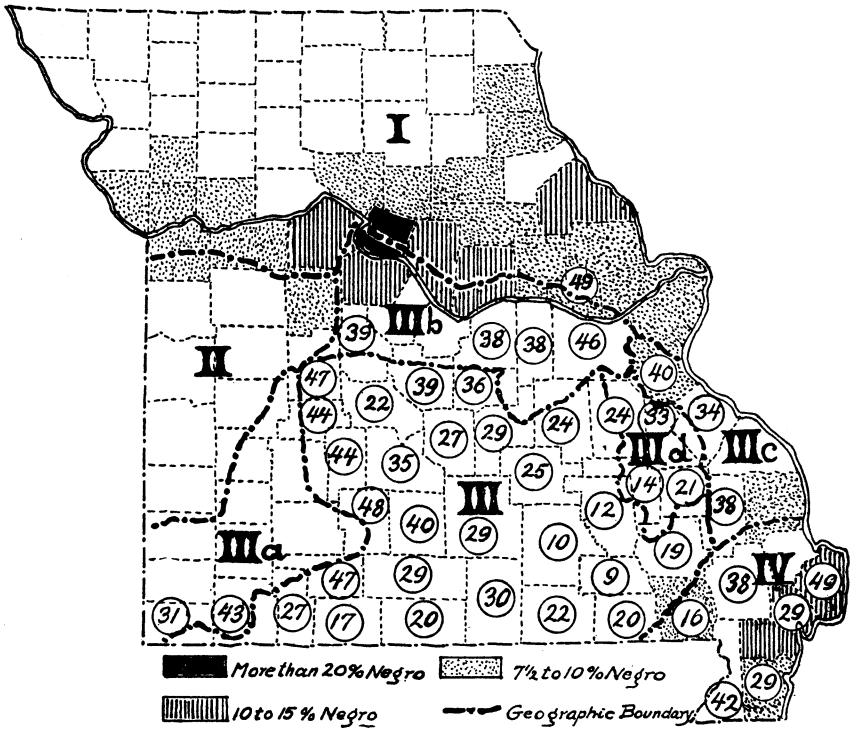


FIG. 1. GEOGRAPHIC DIVISIONS OF MISSOURI

I, Plain of North Missouri; II, Osage Plain; III, Ozark Highland (central portion); IIIa, Springfield Plain (western Ozark border); IIIb, Missouri River border of Ozarks; IIIc, Mississippi River border of Ozarks; IIId, St. François Mountain Region; IV, Southeastern Lowlands. Counties possessing less than 50 per cent of total surface in improved farm lands are designated by circles. Figure in circle indicates percentage improved in 1910.

region. It is well settled, well supplied with means of transportation, and contains numerous towns. The Missouri River border (IIIb) has a ridge and valley topography, most pronounced in the eastern part. Most of the ridges have second-

rate farming tracts upon them. The valleys have an excellent soil. Between are forested or pastured slopes. Fair farming conditions prevail. The situation in the Mississippi River border (IIIc) is similar, conditions here improving southward. Neither of these border areas has any great mineral resource. The St. François region (IIId) consists of rugged knobs of crystalline rock, towering above rich limestone basins. In the latter the greatest lead mining district of the country has developed. The counties of least agricultural development lie in this last district and in the Ozark center (fig. 1). The Southeastern Lowlands (IV) are alluvial accumulations, on a huge scale, of the Mississippi River and its tributaries. The land is superbly fertile, but most of it is available for agriculture only after extensive drainage. Covered originally by hardwoods and cypress it is now being devoted to cotton and corn culture. The older counties, on the Mississippi River, have a rather large negro population. This section is the youngest part of the state in point of development, and is increasing at present more rapidly in wealth and population than any other part of Missouri.

Present party lines in Missouri were drawn at the time of the Civil War or before it, at least in a general way. Southern stock means Democratic allegiance; northern, Republican. Northwest Missouri (fig. 2) is curiously mixed and represents the mingling of the old southern influence which came in by the Missouri River, and of the northern immigration across the prairies of Illinois and Iowa. The Mississippi River border of the Ozarks, like that of the Missouri, is Republican due to German immigration. Ste. Genevieve County alone remains Democratic. Its older French Catholic population attracted German immigrants of the same faith, who are, in Missouri, for the most part, Democratic. The Republican character of the major part of the Ozarks is analogous to the Republican nature of the hill districts of Kentucky and Tennessee, and the settlement was effected in large part by the same stock, reinforced later by small farmers from northern states. In the eastern Ozarks, in the roughest hill districts of the state, the Democratic party dominates. The amount of land that can be farmed here

is small but the land is in general of good quality, consisting of limestone basins and alluvial bottoms. These limited tracts, near the Mississippi, were taken up at an early date by settlers of Southern stock. The extreme roughness of the hills restricted the development of typical hill settlements, and the control

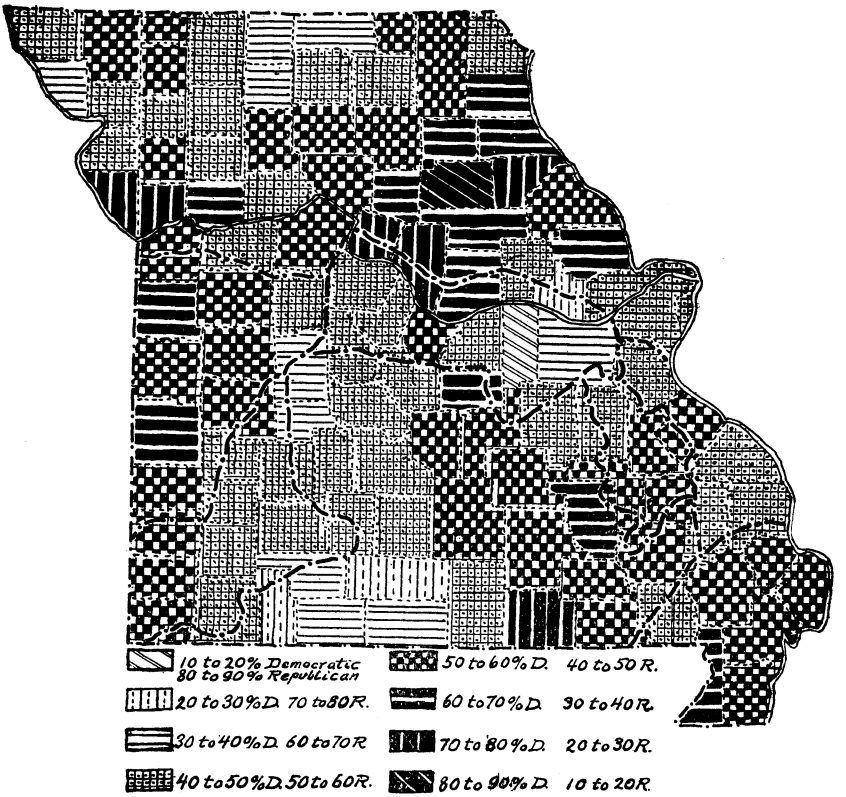


FIG. 2. DISTRIBUTION OF DEMOCRATIC AND REPUBLICAN VOTE IN MISSOURI
Based on vote for governor in 1916

rests therefore still with the old valley settlements. The Democratic character of the southwestern counties (Osage Plain) is evidence of their settlement at an early date via the Missouri Valley. In part it is also the result of a return movement of Southerners from abolitionist Kansas. The present day distri-

bution of political parties in Missouri rests upon the history of settlement of the state. This in turn depends upon geographic conditions. The earliest immigrants were Southern, brought their Democratic faith with them, and having the pick of the state, established themselves on the most accessible and most desirable areas. The later immigrants were largely Republican, but of different types: (a) Prosperous farmers from the prairie states came into northern and northwestern Missouri; (b) the mountaineer of Kentucky and Tennessee moved into the Ozark Highland; (c) the German immigrant displaced the older settlers from the lower Missouri River district. The balance is still shifting in favor of the Republican party, especially in the Southeastern Lowlands, which are receiving numerous farmers from the north.

The vote for governor in 1916 gave the Democratic candidate 382,295; the Republican, 379,692 ballots. In the last five presidential elections the Republican party has carried the state twice, and in 1912 the combined Republican and Progressive vote exceeded the Democratic vote. Out of 16 seats in Congress, however, the Republicans control 2, the Democrats 14. Apparently, the gerrymander has been employed to good advantage. The map of the congressional districts (fig. 3) shows immediately two that are atrociously gerrymandered, the 7th and 14th. The 7th in fact might almost be said to involve a gerrymander of all southern Missouri. The Democratic stronghold of the old Boonslick country checkmates the Republicanism of the Ozarks in this district. It drives a long wedge into a solid Republican district and makes easy the distribution of the Republican remnants on either hand among other Democratic districts. No argument of common origin or economic interest can be advanced to justify placing the voter of Howard in the Boonslick in the same district with the citizen from Greene in the Ozarks. It is worthy of note that the old Democratic stronghold between the Missouri and Mississippi rivers is distributed among five congressional districts and that these are all safely Democratic as a result. Populous Boone by a heavy Democratic vote overcomes the Republican pluralities of the Ozark counties south of

the river. Monroe, Randolph, and Chariton assure the outcome in the 2d district, as do Marion, Lewis, and Shelby in the 1st. In the 9th the heavy vote of Audrain, Ralls, Callaway, and Pike is needed to counterbalance the Republican ballots of the German counties of the lower Missouri. In thus safeguarding the Democracy of Missouri the lines are drawn not around, but across

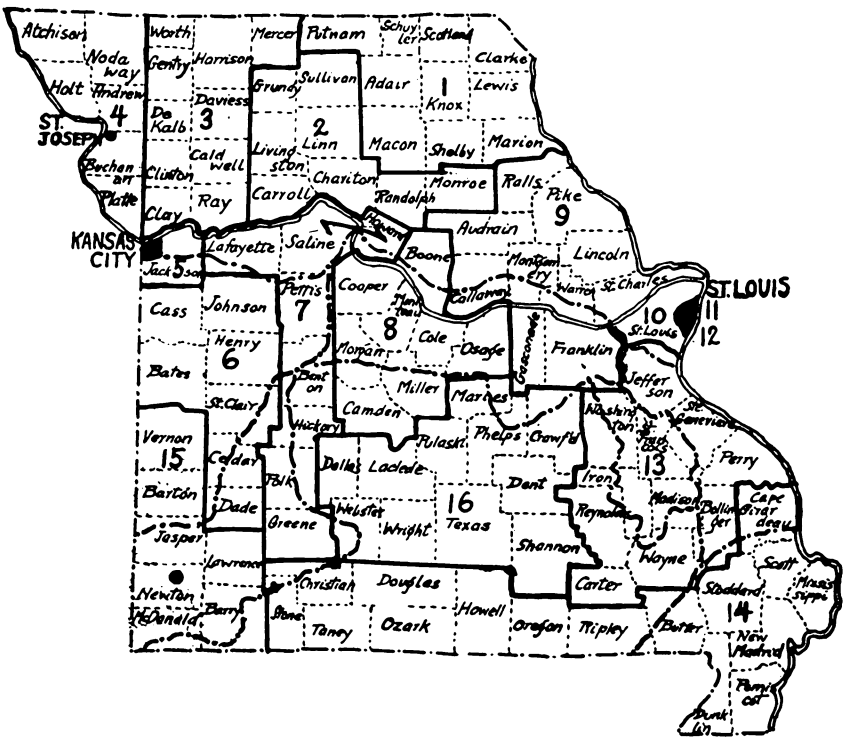


FIG. 3. CONGRESSIONAL DISTRICTS IN MISSOURI

areas of common interest and tradition. North Missouri therefore may also be said to be gerrymandered. Along the Arkansas border, the 14th district pairs the cotton farmer of the Southeastern Lowlands with the native of the remote White River hills in Stone and Taney counties, most Ozarkian of the Ozarks. A more ill-matched group would be hard to find. There is not even direct communication between extremities of this district.

To get from northern Dunklin County to Taney County, for example, it would be necessary to go to St. Louis (passing through Illinois), thence to Springfield, transferring there to a third railroad after making a circuit of half the state and going through a neighboring state.

The gerrymander may also be based upon inequality of size of electoral districts. The population in 1910 of the congressional districts of Missouri was as follows (figure in parentheses indicates value of individual vote in district on basis of a normal value of one in a district of average population, 205, 833):

1.....174,971 (1.18)	6.....150,486 (1.36)	12.....149,390 (1.37)
2.....171,135 (1.20)	7.....218,182 (0.94)	13.....167,188 (1.23)
3.....159,419 (1.29)	8.....142,621 (1.51)	14.....296,316 (0.59)
4.....179,707 (1.14)	9.....190,688 (1.07)	15.....226,374 (0.90)
5.....283,522 (0.72)	10.....416,389 (0.49)	16.....163,280 (1.26)
	11.....203,667 (1.00)	

One vote in Boone County is as effective as three in St. Louis County or in a part of St. Louis City. The 10th district is incontestably Republican. It has therefore been allowed to include as many Republican voters as possible. The 14th district, if terminated at the west by Ripley County, would be the equivalent of the Southeastern Lowlands, and would have the normal population of a Missouri district. The district, as thus constituted would be strongly Democratic. Accordingly we find the gratuitous addition of seven Ozark counties, including five of the most solidly Republican counties of the state. The result is a small but usually safe Democratic majority. These oversized districts are compensated for by others of small population, as the 8th and 16th, which could not be enlarged readily without endangering their Democratic status. By these nice adjustments of size and boundary the Democratic party has stretched an exceedingly slight majority to a control of seven-eighths of the seats in Congress.

In figure 4 the congressional districts are cut on geographic patterns in so far as geographic districts can be harmonized with the normal population requirements. If party alignment is related to economic conditions, the result should divide the districts fairly among the two parties.

Perhaps the strongest economic and social contrasts are between the large cities and the rural districts. Missouri has two cities, St. Louis and Kansas City, exceeding the population of an average congressional district—205,833, in 1910. St. Louis, with a population of 687,029 in 1910, is entitled to three full congressional districts. Kansas City, with 248,381, should constitute a

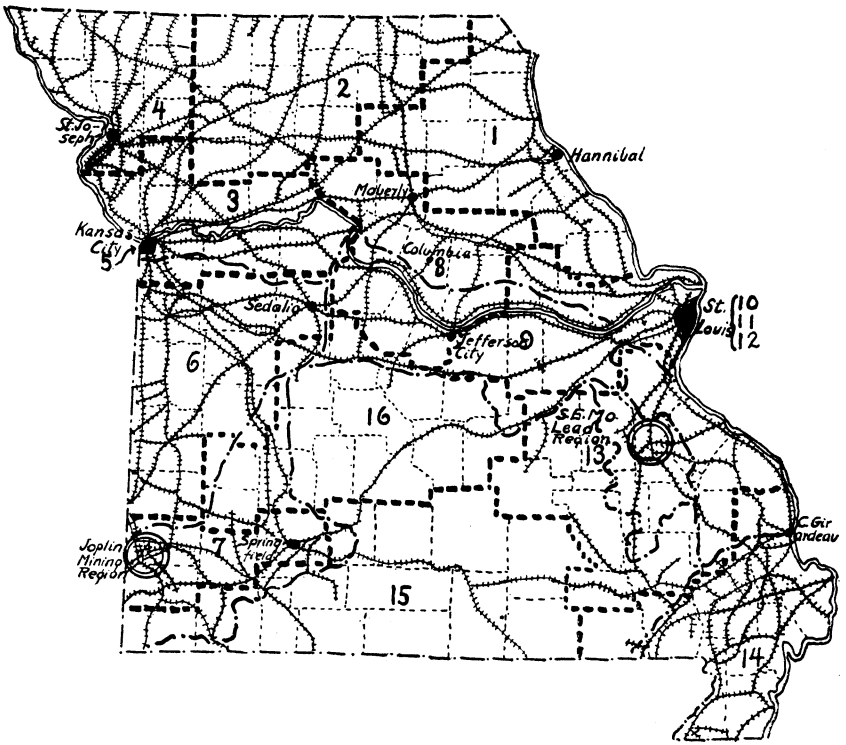


FIG. 4. GEOGRAPHIC REARRANGEMENT OF CONGRESSIONAL DISTRICTS IN MISSOURI

district without the addition of the rest of Jackson County. If, on the basis of the census of 1910, four full congressional districts were created out of these two cities, the average population of the remaining districts of the state would be reduced to 196,494. That of the four urban districts would average 233,850. This disparity in size is counterbalanced by the greater number of aliens and other nonresidents among the city population.

In the rearrangement of the rural districts, recognition is given first of all to the unity of the Missouri River counties. Below Kansas City, these may be grouped readily into three districts. The eastern district (9 in fig. 4) is in most intimate touch with St. Louis, all important connections being with that city. It has more rough hill land than the more westerly sections, and farming conditions are somewhat less good, at least until dairying is introduced. The people are predominantly of German descent, primarily grain farmers. The western district (3) is similarly related to Kansas City, consists of excellent glacial prairie, loess, and alluvial lands, of smooth surface, and is an important producer of cattle, hogs, and corn. The central river district (8) includes the heart of the Boonslick country and the old settlements to its northeast. It is equally well connected with St. Louis and Kansas City, but has also important commercial relations with Chicago. This area by location and tradition is the heart of the state, inhabited by the oldest and proudest Missouri stock, and seat of the state capitol and university.

The unity of the Mississippi River counties is preserved in district 1, with Hannibal as central city. The prairie counties of northwest Missouri are similarly centered about St. Joseph (4). The remainder of northern Missouri (2) forms a compact district, with similar agricultural conditions, and without a dominant center of population or line of communication.

In southern Missouri the Osage Plain (6) is of exactly the proper size to constitute a congressional district. The Southeastern Lowlands, by the addition of a bit of the adjacent upland, furnish another (14). As Cape Girardeau owes its importance to this section, it is quite properly placed within the lowland district. The four populous commercial and mining counties of the southwestern Ozark border form a district (7) in which urban influences prevail. There remain the northern part of the Ozarks proper (16), the southern Ozark counties (15), and the eastern Ozarks (13). The last is a complex area, made up of a number of smaller areas. It is, however, fairly well connected by railroad lines, and economically is partially dominated by the St. François lead mining region.

By this classification compact districts have been secured, with a maximum accessibility of counties to each other, and due regard has been given to economic and historic bonds. No attention was paid to securing a proportionate representation of the two parties. Nevertheless such a result is secured, as shown by the following table of the normal results of congressional election in the districts as thus constituted:

1. Democratic.	Majority.....10,000	9. Republican.	Majority.....13,000
2. Republican.	Majority..... 4,000	10. Republican.....	
3. Democratic.	Majority..... 8,000	11. Democratic.....	
4. Republican.	Majority..... 4,000	12. Republican.....	
5. Democratic.....		13. Democratic.	Majority..1,000 to 0
6. Democratic.	Majority..... 4,000	14. Democratic.	Majority..... 4,000
7. Republican.	Majority...1,000 to 0	15. Republican.	Majority..... 3,500
8. Democratic.	Majority.....10,000	16. Republican.	Majority..... 3,500

On a strictly partisan election the congressional representation would be evenly divided. Ordinarily, the Democrats would have a slight advantage. Under favorable circumstances one party might gain 10 to the other's 6. In this rearrangement of districts the maximum deviation of population from the normal population of a Missouri district does not exceed 6 per cent (census of 1910).

KENTUCKY

The state of Kentucky constitutes in essence part of a slope that leads up to the crest of the Cumberland sector of the Appalachians. From the mouth of the Tennessee River to the Virginia boundary the land rises steadily. The result is that the higher eastern portion of the slope, by dissection, has assumed mountainous characteristics and is commonly called the Mountains of Kentucky (fig. 5, IV), whereas the western portion (II) is hilly, or merely rolling. Evidently no sharp line separates these two areas, however strong their contrast of surface and economic conditions. Several tiers of counties in fact constitute a transition zone, in which, as one goes westward, the hills gradually decrease and the prosperity of the inhabitants even more gradually shows improvement. A rude dividing line may be drawn west of the headwaters of the Cumberland River.

The map (fig. 5), in terms of percentages of improved land, expresses the change in roughness of country along this line. In the western area, the coal horizons, characterized not only by their mineral fuel but by distinctive topography and soils, may be set apart (IIb). Within the great northward bend of the Ohio lies the Blue-Grass (III) limestone lowland, separated from the highlands to the south by a double rim of rocky escarpments.

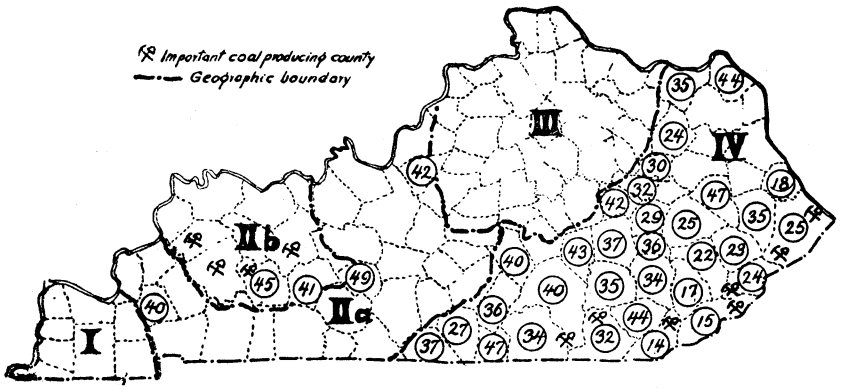


FIG. 5. GEOGRAPHIC DIVISIONS OF KENTUCKY

I, "Purchase" or Mississippi Lowlands; IIa and IIb, upland areas of western Kentucky, predominatingly limestone hills, IIb being "Coal Measures" area; III, Blue-Grass Lowlands; IV, "Mountains" of Kentucky, in reality a much dissected plateau. The circles indicate counties with less than 50 per cent of their total surface improved land, the numbers showing the percentage improved.

At the extreme west is a bit of the great alluvial Mississippi lowlands, known in Kentucky as the "Purchase" (I). Mountaineer, Blue-Grass country squire, tobacco grower of the western section, these are a few of the contrasted types included in the term Kentuckian.

The topographic relations of political parties are obvious (fig. 6). The rich Blue-Grass and Purchase lowlands are centers of Democratic strength. In the fastnesses of the "Mountains" the Republican vote rises in two instances to more than 90 per cent of the total. The richer, smooth portions of the western uplands are in general Democratic, as are the alluvial areas of the Ohio, Cumberland, and Tennessee rivers. The area controlled

by the Republican party is considerably larger than that in which Democratic strength is dominant, but the greater populousness of the Democratic districts gives to them a slightly greater voting strength. At the present time the Republican congressional districts are two out of eleven, the 10th and 11th (fig. 7), both located entirely in the "Mountains." Yet the normal Democratic majority of the state is but a few thousand; in the 1915 gubernatorial election was in fact only 471.

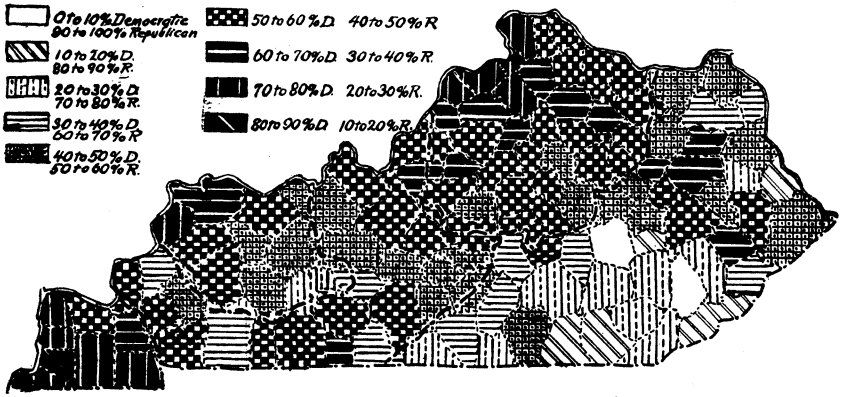


FIG. 6. DISTRIBUTION OF DEMOCRATIC AND REPUBLICAN VOTING STRENGTH IN KENTUCKY

Based on vote for governor in 1915

With a close relation between geographic divisions and party affiliations it is evident that the gerrymander has been employed to good purpose. The Blue-Grass serves the same purpose that the Boonslick region in Missouri does, as shown by its control of the 4th, 7th, 8th, and 9th districts (fig. 7). A less obvious, but skillful distribution of territory in the 2d and 3d districts has made both Democratic. The 1st district, by its position at the western extremity of the narrow state, has not lent itself to such uses, and shows a surplus of 10,000 Democratic votes. This district and the 11th are the only ones that are not in any sense gerrymandered. The 11th is, however, much oversized in population.

The geographical divisions of Kentucky are of such size that they can be well accommodated to the population requirements of congressional districts. The population of the Blue-Grass region, estimated at its maximum area, is about that of three normal congressional districts. The "Mountains" contain nearly the same population. The city of Louisville will account for one district, as will the coal-bearing limestone district of the Owensboro-Henderson region. The remainder of the limestone upland has more than enough for two districts. The surplus, therefore, may be put with the Purchase lowlands to complete the last district of the state on a geographic rearrangement.

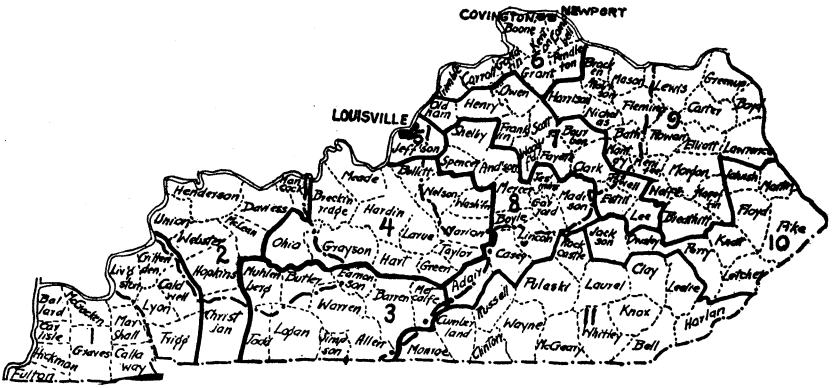


FIG. 7. CONGRESSIONAL DISTRICTS IN KENTUCKY

Even in the upland counties of this westernmost district lowland influences predominate, for they contain the mouths of the Cumberland and Tennessee rivers. The possibilities of making political divisions on geographic lines are, therefore, of an unusual nature in this state. Figure 8 shows the close accordance that may be achieved. These districts all have nearly identical populations. Moreover, except the two districts in the heart of the "Mountains," they all are organized about urban centers, with which they are well connected, and which would serve as informal capitals for the political life of their districts.

This geographical redistribution of districts would leave a Democratic majority of one, instead of the present control of nine out of eleven seats in Congress. It would, therefore, as in

the case of Missouri, bring to light the fact, now thoroughly concealed, that the division of parties in Kentucky is sectional. On this basis, the Blue-Grass region and Louisville would form a compact group of four Democratic districts, encircled by upland Republican districts. On the west, the lowland and coal measures counties would add two more to the Democratic column.

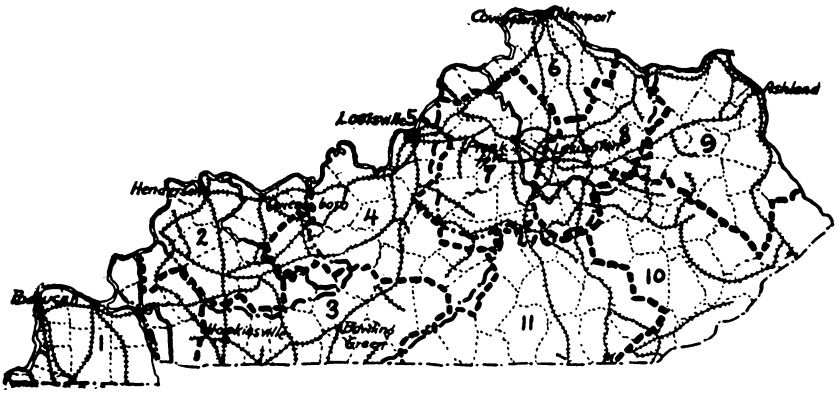


FIG. 8. GEOGRAPHIC REARRANGEMENT OF CONGRESSIONAL DISTRICTS IN KENTUCKY

As to area, the extent of the five Republican districts would be greater than that of the six Democratic ones. The following table gives the normal plurality of these geographically revised districts:

1. Democratic.	Majority.....	10,000	7. Democratic.	Majority.....	7,000
2. Democratic.	Majority.....	1,500	8. Democratic.	Majority.....	1,500
3. Republican.	Majority.....	2,000	9. Republican.	Majority.....	4,000
4. Republican.	Majority.....	750	10. Republican.	Majority.....	10,000
5. Democratic.	Majority.....	3,000	11. Republican.	Majority.....	12,000
6. Democratic.	Majority.....	8,000			

TENNESSEE

As in few other states, the conditions and affairs of the people of Tennessee are based on geologic structure. Surface, drainage, soils, mineral resources, contact with other areas, all these have their determination in the geology. Geology is indeed a subject of every day importance in Tennessee, for upon it depend

the wealth or poverty, progress or stagnation, even the political convictions of its sections to an extraordinary degree.

The state has eight natural divisions. Three of these are lowland areas, one in west, one in middle, and one in east Tennessee. Between them are highland areas, less densely settled, less prosperous, less significant in the affairs of the state.

West Tennessee forms a lowland area (I and II in fig. 9) in striking contrast to the uplands east of the Tennessee River. Geologically, Tennessee west of the Tennessee River is young, east of that stream old. The portion adjacent to the Mississippi River (I) is much superior in resources to the area adjoining the Tennessee (II). The former consists of the most recent sands, silts, and clays (largely Tertiary), overspread in part by loess, and of large amounts of alluvial lands. It is the most southern part of the state in its characteristics. Here most of the cotton of the state is produced, large land holdings are the rule, and the proportion of negroes is highest. The northern and southern sections of this area (I) again may be contrasted. In the north, corn and wheat replace largely the cotton culture of the southern counties, the negro population is much less numerous, and the white population is much less distinctly southern in character. The area west of the Tennessee River (II) is composed of older (in the main Cretaceous) sediments, with more gravelly and sandy material. The land is generally poor in humus, and in places has been sadly damaged by soil erosion. It is inhabited largely by rather poor, small farmers. The scant agricultural attractions of the area have not resulted in the introduction of negro labor to any extent. The Tennessee River is still the principal route of communication for a large part of this region. Railroads have been built across the area rather than into it.

The lowland area of central Tennessee is the Nashville Basin (V). It is a lowland region only with reference to the higher lands that completely surround it, called the Highland Rim. Geologically and geographically, it is the counterpart of the Blue-Grass region of Kentucky. It is splendid limestone farming country, producing corn, stock, and tobacco. East Ten-

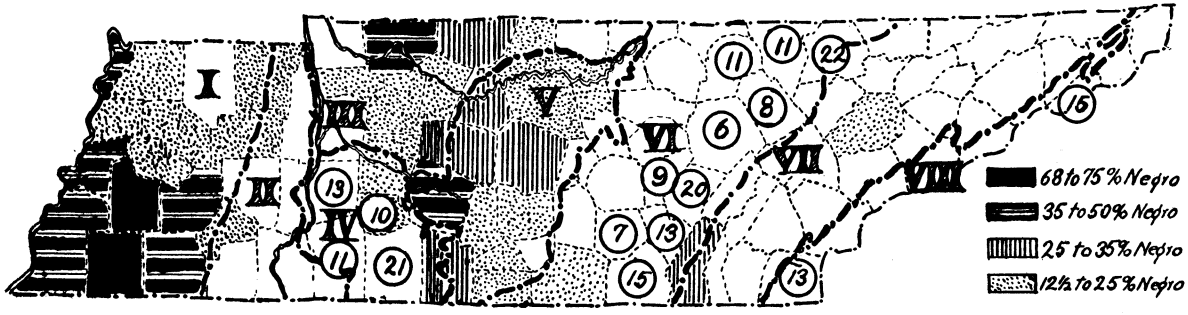


FIG. 9. GEOGRAPHIC DIVISIONS OF TENNESSEE

I and II, Lowlands of west Tennessee, I (of Tertiary and later age) being smoother, more productive, and more highly developed than II (of Cretaceous age); III and IV, western part of the Highland Rim, IV being rough hill country, III (the Clarksville region) less rough and especially productive of tobacco; V, the Nashville Basin or lowlands of middle Tennessee; VI, eastern part of Highland Rim and Cumberland Plateau; VII, Valley of East Tennessee; VIII, Older Appalachian Mountains. The counties containing the lowest percentages of improved land are indicated by circles.

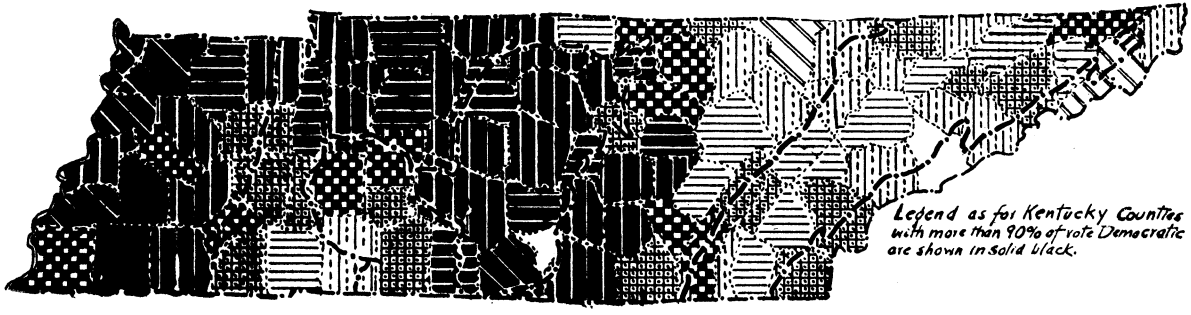


FIG. 10. DISTRIBUTION OF DEMOCRATIC AND REPUBLICAN VOTING STRENGTH IN TENNESSEE

Based on vote for governor in 1916

nessee (VII) is a continuation of the Valley of Virginia, part of the great trough that lies within the Appalachian mountain system. Along the Carolina border rise the great mountain masses of the harder, older Appalachian rock formations (VIII). At the west the Valley of East Tennessee is overtopped by the long ridge of Walden or Cumberland Mountain, in reality the margin of a plateau, the Cumberland Plateau (VI), that slopes away toward the Nashville Basin. This is the Tennessee equivalent of the "Mountains" of Kentucky, and is no less isolated and unproductive than the region to the north. On the west of the Nashville Basin is a similar, but lower highland, especially poor and rugged in its southern part (IV). The northern part lies better, is less dissected, and has a much more desirable soil (III). It constitutes a prosperous tobacco growing section, similar to the adjacent region in Kentucky. In economic value this area ranks immediately after the three lowland regions.

Tennessee politics are the combined result of productivity of the soil and of geographical position. The poor areas here as in the other states discussed in this paper are Republican. The rich areas are Democratic, except the Valley of East Tennessee. This is as desirable a farming area as is found in the state and is the oldest part of the state in point of development. Yet this area, older than any in the three states under discussion, is strongly Republican. It was occupied originally by small farmers, not slaveholders, who passed southward through this great structural valley, largely from the Scotch-Irish and German settlements of Pennsylvania and Virginia. Small grains, hay, and corn remained the principal crops, and the institution of slavery never became profitable or popular with these people. Thus does the story of political faith in the border states go back even today to the causes of an institution that has disappeared two generations since. East Tennessee against the rest of the state has been the line-up in political frays almost since the state has been in existence.

The solid Republican eastern Tennessee is so situated that its gerrymandering is almost impossible, chiefly because of the attenuated form of the state. Here there are consequently two

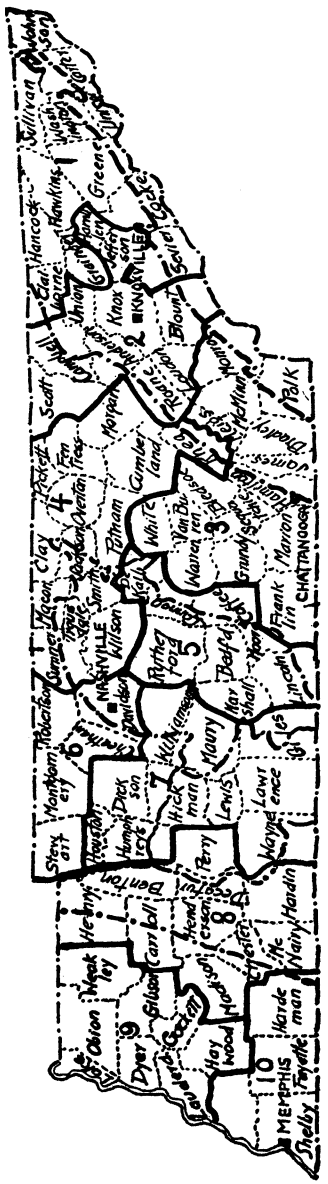


FIG. 11. CONGRESSIONAL DISTRICTS IN TENNESSEE

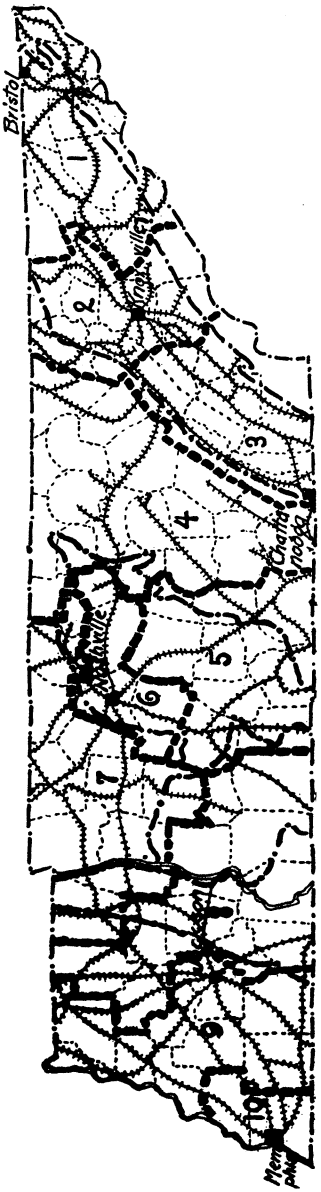


FIG. 12. GEOGRAPHIC REARRANGEMENT OF CONGRESSIONAL DISTRICTS IN TENNESSEE

regularly Republican congressional districts (fig. 11). The other eight districts, however, are Democratic. Again we find the most centrally located Democratic area used for the control of adjacent districts, in this case the Nashville Basin controlling the 4th, 5th, 6th, and 7th districts. The 4th district includes parts of four distinct geographic regions, ranging from Rhea County, in the East Tennessee Valley, to Sumner, on the tobacco growing uplands of the western Highland Rim. The minor Republican district of the Tennessee River hills is easily concealed in the 7th and 8th districts by the plausible device of employing the river as a boundary line. The result is quite as unfair to the sections involved as is the similar practice in Missouri.

East and middle Tennessee are easily rearranged on a geographic basis. The Valley of East Tennessee has a population equivalent to three congressional districts (fig. 12). The Nashville Basin accommodates two. The intervening Cumberland Plateau and Highland Rim, although of large area, is the equivalent of one district. The tobacco growing Highland Rim, northwest of Nashville, becomes a district by the addition of two counties west of the Tennessee. The good lowlands of west Tennessee form two districts. The remaining district would be constituted by the broken country of the southwestern Highland Rim and the inferior lowland area west of the Tennessee River. For equality of population two of the better counties of west Tennessee, Gibson and Weakley, are added. These last constitute the only serious departure from geographic unity. By this arrangement every geographic division of the state receives political expression. The result would be five certain Democratic districts, two in west Tennessee, two in the Nashville Basin, and the Clarksville portion of the Highland Rim. The three districts of east Tennessee would be Republican. The Cumberland Plateau district and the district (8) formed by the southwestern Highland Rim and the Cretaceous lowlands would be doubtful. The result would again express the relative strength of the two parties in the state.